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Insights into the use of social comparisons within an advanced cancer setting

Rachel Starkings^{a,b,*}, Valerie Jenkins^a, Valerie Shilling^a

Abstract

Background: The PROACT (Patient Reported Outcomes in cancer, impact of Age and Carer role demands associated with Treatment) study had the primary aim of developing 2 scales measuring the impact of cancer on wellbeing and caregiving responsibilities, for people with cancer and the individuals supporting them. The project consisted of 4 consecutive studies; the first stage was the collection of qualitative narratives to understand the patient/caregiver experience. This article reports on an incidental finding from these narratives. **Methods:** The researchers conducted semistructured interviews exploring participants' views on the impact cancer had on their quality of life. They interviewed 24 people with stage III/IV cancer from 3 tumor groups, lung (n=6), melanoma (n=9), and ovarian (n=9), and 23 informal caregivers. Interviews were recorded and transcribed verbatim and a framework was developed through open coding. A framework approach to thematic analysis was employed. **Results:** Twenty themes and 33 subthemes were identified including topics such as impact for caregiving and employment. There was an unplanned finding of participants recurrently using concepts of "luck" or good fortune when describing their situations. Although not a theme itself, this narrative was present across the framework, occurring when individuals made comparisons to "other" groups of people perceived as facing more difficulties. **Conclusions:** This analysis provides insight into the use of language by both patients and informal caregivers in the advanced disease setting, laying the foundation for future research exploring any effects this has on dyadic wellbeing. These interpretations form a basis to explore whether this language can be harnessed by healthcare professionals to deliver information in line with an individual's conceptualization of their situation.

Keywords: Caregivers, Cognitive, Oncology, Psychological Adaptation, Qualitative, Quality of Life

1. Introduction

Some individuals view their cancer experience as a mechanism for positive change and growth, reporting better interpersonal relationships and renewed appreciation for parts of their

life.^[1-3] How a person reacts to stress cognitively is a predictor of later adjustment with a nuanced selection of coping style dependent on what is appropriate and constructive for the individual.^[1,4] In line with the Lazarus and Folkman transactional theory of stress, this evaluation consists of assessing a situation, reviewing the threat posed and weighing up what resources an individual has at their disposal.^[4,5] The secondary appraisal of resources then leads to the use of various coping mechanisms.^[5,6] Social comparison is one strategy which cognitively realigns a stressor, particularly one that is unlikely to change in outcome, such as advanced cancer. Its use, be it upward, downward, or lateral, can be seen within the cancer setting, particularly in perceptions and reactions to the illness. One of the biggest drivers for downward evaluations is the perception of threat^[7-9]; people with cancer face many unknowns, and may naturally seek to reassess their situation.^[10,11] In the absence of information or reassurance from healthcare professionals (HCPs), individuals might look to others with cancer to gauge what is normal or appropriate,^[11] a method which could be undertaken by informal caregivers, also facing uncertainties.^[12]

Research suggests people with cancer prefer to look upwards for purposes of guidance, avoiding social interactions with those perceived to be worse off.^[13,14] Inevitably, however, they and their informal caregivers will encounter other individuals with the same illness either firsthand in a clinic setting or via word of mouth.^[13] To navigate this "threat," individuals make downward observations to relieve anxiety and promote self-enhancement.^[7] This may similarly increase confidence when facing new challenges associated with living with cancer.^[15]

Appraisals were originally thought to be limited to real individuals or groups, but people also make references to "others" based on general impressions or perceptions.^[7,8,16] For

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All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

VS has received an honorarium from the funder for serving on an advisory board. The two remaining authors have no conflicting interests.

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example one study noted that when women with early-stage breast cancer were presented with another woman’s story, regardless of that person’s prognosis, they would still find a feature from which to draw positives.^[17] Others equally found that women with breast cancer compared themselves more frequently via dimensions on which they differed rather than those they shared to make downward distinctions.^[8]

After systematically reviewing the literature on quality of life (QoL) measures available for both patients and caregivers, several gaps were identified such as the lack of rigorous psychometric evaluation and the impact on roles and responsibilities including employment. The primary aim of the PROACT project was to develop and validate 2 measures that captured these impacts for people with cancer and informal caregivers.^[18,19] The project comprised 4 consecutive studies, the first being qualitative interviews to inform item generation. As a product of this process, the researchers amassed a body of qualitative data highlighting the ways people described their experiences. The analysis presented within this article is separate to measure development and validation, which is described elsewhere.^[20,21] The theory of social comparison serves as a platform from which to view these narratives, in particular the spontaneous use of language ascribing “good fortune” or “luck” from both individuals with cancer and those supporting them. As Schulz and Mohamed^[1] point out, more work is needed to understand the conceptualization of change following a major life event; the findings presented here are a basis from which to view the dialogue of “luck,” providing a starting point to consider future research.

2. Methods

2.1. Procedure

Two researchers (VS/RS) conducted semistructured interviews using topic guides highlighting broad areas for discussion; these were informed by 2 previous systematic reviews^[18,19] and discussions with people with lived experience of cancer. Topics included physical health, psychological wellbeing, finances, work and career, family, and social life. Participants were asked to discuss these subjects in relation to their quality of life, considering whether any changes had occurred as a result of cancer and how they felt about these. These topics were purely guides with the breadth and depth of an interview determined by the participant. Participants with cancer and informal caregivers were interviewed separate to one another, usually by different researchers. All interviews were recorded and transcribed verbatim with 1 exception for a person with cancer who declined to be recorded. In this instance, detailed notes were taken as a transcript during the interview.

All procedures undertaken were in accordance with both institutional and ethical approvals. The study received approval from the London Queen Square ethics committee (ref: 15/LO/1323) on September 14, 2015. All participants provided signed informed consent.

2.2. Analysis

The researchers used a framework approach to thematic analysis to capture recurring topics.^[22,23] All transcripts were reviewed by two researchers (VS/RS) who double coded 25% of material; themes and subthemes with >2% disagreement and kappa <0.4 between the researchers were reviewed. Disagreements were resolved through discussion between authors and redundant

themes/subthemes were merged elsewhere. The remainder of the transcripts were indexed using this framework with changes made during the process as appropriate. Analysis was conducted using NVivo 11 software. See Shilling et al 2018 for further methodological detail.^[20]

2.3. Participants

Participants were recruited from 4 hospitals in the South-East of England. People with cancer all had advanced (stage III or IV) melanoma, ovarian, or lung cancer without specific criterion regarding treatment type or status. These tumor cohorts were selected to encourage a range of age, sex, caregiving, and employment perspectives. People with cancer were required to nominate a person, willing to participate, who provided informal emotional, practical, and/or personal support. All participants were 18 years or older and able to read and speak English. Individuals who were inpatients or acutely distressed were ineligible for the study.

The recruitment target for the study was 25 dyads; 40 people with cancer were initially interested but because of illness/death (3/7%), other commitments/not interested (8/20%), or an informal caregiver declining study (4/10%) there was a final sample of 24 dyads (60%). One potential participant from the sample of 40 (2.5%) did not want to take part as they did not believe they had advanced cancer. From the 24 dyads recruited, the researchers recorded 38.5 hours of interviews. Following consent, one informal caregiver was unable to complete the interview as they were too distressed and 1 person with cancer requested to have their interview transcribed instead of recorded. Participants with cancer were predominantly female (67%) with a median age of 62 (range 39–84). Informal caregivers were also mainly female (65%) with a median age of 54 (range 19–85). Further details of participant and dyad characteristics can be found in Tables 1 and 2.

3. Results

A framework of 20 themes and 33 subthemes was developed including topics such as impact for caregiver, changes in employment, and confidence.^[20] Although not part of the primary analysis, it became apparent while reviewing the framework that both patients and their informal caregivers recurrently used concepts of “luck” to describe their situations.

Table 1

Characteristics of people with cancer.

Study groups	Age range (Median)	Sex (F/M)	Time since diagnosis	
Study population N=24	39–84	16 (67%)	<1 y	11
	62 y	8 (33%)	1–2 y	5
			>2 y	8
Lung N=6	53–79	4F	<1 y	3
	63.5	2M	1–2 y	2
			>2 y	1
Melanoma N=9	37–69	3F	<1 y	3
	59 y	6M	1–2 y:	2
			>2 yr	4
Ovarian N=9	44–84	9F	<1 y	5
	64 y		1–2 y	1
			>2 y	3

*Demographic details are also provided in an additional PROACT publication by Shilling et al. (2018)^[20].

Table 2
Characteristics of people providing support.

Study groups	Age range (median)	Sex (F/M)	Relationship	
Study population	19–85	15 (65%)	Spouse/partner	14
N=24	54 y	8 (35%)	Mother–adult child	5*
			Siblings	2
			Friends	2
Lung	19–68	4F	Spouse/partner	3
N=6	54 y	2M	Mother–adult child:	2
			Friends	1
Melanoma	36–70	5F	Spouse/partner	8
N=8†	53 y	3M		
Ovarian	32–85	6F	Spouse/partner	3
N=9	54 y	3M	Mother–adult child	3
			Siblings	2
			Friends	1

* All 5 mother–adult child relationships were with adult children providing informal support to their parent. Demographic details are also provided in an additional PROACT publication by Shilling et al. 2019^[21].

† N=8 as an informal caregiver declined interview on the day.

This narrative was present when individuals described their general outlook on life and as a mechanism for drawing comparisons to “other” people. These were not usually named individuals, but generalized perceived as facing harder circumstances. Further examples from the transcripts are provided in appendices 1 and 2, <http://links.lww.com/OR9/A2>.

3.1. People with cancer

People with cancer particularly referenced “luck” when discussing the social support available to them. This was most pronounced when discussing family and support systems; in one example a distinction was made to a person with cancer seen in a clinic setting while most other references were cognitive constructions.

I realise how lucky I am and I feel desperately sorry for people like her, you know that haven't got that support close to hand [. . .] I'm lucky because I've got somebody with me all the time. (P52)

I'm lucky I suppose really you see, I've got the help that perhaps somebody else hasn't got. (P37)

In addition to support, participants with cancer made the most downward comparisons when discussing overall wellbeing and the disease impact on work or finances. When discussing the disease itself, the comparative focus was directed toward different types of cancer or other diseases entirely. Some of these observations were to people seen in clinic perceived as struggling without knowledge of their experiences. Others were made to real friends or relatives with different health concerns.

We go to (hospital) and you only have to look around the room and you just think you're not too badly off here. It's not too bad. (P26)

This application extended to discussions around the type of treatment a person received, particularly if a participant felt their treatment schedule was flexible or their medical team understood what was important to their quality of life. For example, participants receiving systemic therapies referenced “luck” in relation to treatment side effects if they were not as bad as others had experienced or as they imagined them to be.

And obviously because of the chemotherapy although I've not coped that badly with chemotherapy but you don't feel 100% you know I've had very minimal side effects like my legs ache and things like that but I'm lucky compared to most people. (P35)

Participants without visible effects of surgery discussed managing day-to-day with relative anonymity. They reflected that although surgery required recovery time, it had not impinged heavily on work and other responsibilities, observing a presumed burden of systemic treatment.

I don't think having a bit more hair, not having a scar, would make me more confident in my conversations in day to day life and in work. So again, I'm quite lucky like that. Had I have had chemotherapy and lost all my hair totally overnight, I would probably be different I think. (P26)

People with cancer who were still working described themselves as lucky to receive support from their employer. In particular this descriptor was used by those who felt they had a positive career or fiscal standing without worrying about time off; contrasts were made to people carrying that burden alongside their diagnosis.

We are extremely lucky, we do know that because at least we can still earn an income and we don't have the financial worries that some people have to have. (P43)

Equally, those individuals who had retired from work before diagnosis described feeling fortunate to not need to juggle employment responsibilities or a loss of income alongside a schedule of appointments.

I'm in a better position than a lot of my peers and I imagine other people who've been diagnosed with whatever cancers and have money worries, job worries [. . .] how people can cope with that when they're in work, I don't know. (P17)

Those participants needing financial assistance or lifestyle adjustments to accommodate employment changes still differentiated themselves from those they felt were unable to make such modifications.

I've been really blessed with a lot of people who've given me time and a lot of help. So financially, at this moment in time, I'm okay. I'm very lucky because I'm sure that there are a lot of people who are not. (P62)

Certain participants with cancer posited themselves as generally being “lucky,” making downward comparisons against an imagined group, as opposed to named individuals.

I've got nothing to look back and feel sorry for myself. If I died tomorrow, I've had more happiness in my life than a lot of people have had in a hundred years you know? [. . .] so I just think I'm such a lucky person that what is there to feel miserable about. (P28)

3.2. Informal Caregivers

Informal caregivers similarly referenced general “luck.” Unique to this group of participants, however, was the conceptualization of “luck” based on hypothetical positioning to what could have been or predictions as to how they would later feel about the caregiving experience.

But I think at the end of it I'll look back on it and I'll be like thank god for it. I'll be like thank God that happened because it has

made me stronger and it has made me more knowledgeable and more understanding [. . .]. (C57)

Using the same method as those individuals with cancer, informal caregivers made health-based evaluations either in the context of the person with cancer or their own wellbeing.

Because cancer's so depressing [. . .] P5 would go for chemotherapy and you'd see somebody in a far worse boat than yourself, and then you think, well actually today I feel really positive [. . .] they just might be at a different stage or they just might have had some worse luck, and then you feel a bit mean. (C5)

Social comparisons were used to describe the person with cancer as lucky or to draw personal contrasts to them.

As I say it opened my eyes completely to a whole new outlook on life. And it's suddenly become . . . well I was going to say it's become a big thing in my life but that's not fair because it's not a big thing in my life really because I'm lucky at the moment. (C9)

There was an example of upward appraisal as an informal caregiver wondered why the person with cancer was “unlucky.” This was not reflected in the dialogue for the other member of this dyad. This direction of assessment was not a prominent feature of discussion across transcripts and therefore this reference stood out by nature of its contrast.

I do feel aggrieved. You know, you get the syndrome ‘why us?’ Now there are thousands, tens of thousands of people with cancer [. . .] Still I felt that, particularly of what she'd gone through in her life up to then [. . .] Clearly nobody deserves it but she really didn't deserve it, but that's life. (C12)

Informal caregivers employed the term “lucky” when discussing finances, be it in relation to an unchanged income or circumstances affording financial freedom. Similar to people with cancer, informal caregivers who maintained employment, or felt comfortably retired, positioned themselves against other people perceived as facing greater financial burden. Caregivers also ascribed “luck” if either they or the person they supported was able to maintain an income or an employee health package.

He is really lucky where he is from a health benefit point of view, health insurance and the benefit packages were really good, and his boss has been really good, and you think you never know. (C73)

Additional to the daily monetary impact, informal caregivers observed these differences when discussing future financial security.

We're very lucky in that we don't really have any problems that way. That's not to say we're multimillionaires or anything but, we're quite comfortable. So no I mean, if anything happened to P46, I'm more than well looked after. (C46)

4. Discussion

People with cancer and their informal caregivers employed the concept of “luck” to describe their experiences, stemming from downward observations to “other people” presumed to be in worse situations. There is a precedent within the cognitive literature for people experiencing great stress to describe their experiences positively, including a cancer diagnosis, by drawing contrasts to others.^[3,24,25] Our findings provide an insight into these social comparisons and how they manifest in conversation.

To the researchers' knowledge the concept of “luck” has not previously been reported in an advanced disease setting for both people with cancer and their informal caregivers. There could be various reasons for this occurrence; first, it is reasonable to assume that people with cancer and their informal caregivers share in conversations, potentially mutually adopting a particular use of language. Second, language is culturally based with a dialogue unique to the cancer setting and, without comment about the appropriateness of “battle” language, it may be that “luck” fits in with this. Third, the use of “luck” could be seen as a more socially acceptable way of comparing oneself to other people.

Previous research has shown that a feeling of increased threat drives more downwardly evaluations but in the advanced disease setting, real life comparators are not necessarily available.^[17] In line with this, PROACT participants did not usually make reference to real, named individuals. Instead most of the examples presented were based on a generalization to “others” who may or may not exist. If a participant did reflect on a specific individual, they could have been doing so based on a perceived similarity.

Both uncertainty and social comparisons were identified during the process of coding the PROACT transcripts and it would be interesting to further analyze whether the same individuals employed both forms of language.^[12]

Downward explorations are often made for the benefit of self-esteem and this is best seen in a naturalistic setting where the perceived threat is explored^[26]; however, records of this composition are sparse.^[9,27,28] PROACT interviews focused on the impact of cancer and the nature of this conversation could have stimulated or enhanced these cognitive constructions. The presence of this language may of course have been a facet of demand characteristics. As Wood et al^[8] point out, when confronted with choosing an accurate or favorable self-assessment, the deciding factor might be the perceived challenge to self-esteem. In particular, study participants had only met the researchers a few moments before their interview and there could have been a desire to present the best version of themselves. There is an argument however that as the participants would never see the researchers again, they may not be as concerned with self-preservation.

4.1. Study limitations

Owing to the qualitative nature and small sample size of this work we acknowledge that our findings are limited in terms of diversity, be that in the range of tumor groups included or the geographic locations represented. This will naturally impact the generalizability of our results; for example, the references to “luck” apparent when discussing financial situations may reflect a lack of socioeconomic diversity. The prevalence of middle class representation in studies could over-represent the presence of “luck” or downward social comparisons as people in this sociodemographic might in fact have more accessible comparators. Research has shown that people avoid appraisals if they do not feel that they would offer positive results^[26]; participants may have displayed demand characteristics in response to the researcher, for example, an individual potentially felt it was culturally appropriate to express some positives so as not to be seen as complaining.

As this phase of the PROACT study was designed to explore issues of quality of life and the impact of cancer, those individuals who wanted to take part may have naturally been more likely to undertake a process of emotional review than those who declined

the study. The social comparison narrative may also be a function of time since diagnosis as PROACT only provides a single snapshot of each participant. Other researchers (eg, Schulz and Mohamed^[11]) note that it is impossible to know when any changes occurred in terms of psychological conceptualization and the subsequent effect of this.

4.2. Future research

To address some of the limitations noted above, future work could feature a more diverse population to capture a broader range of financial, cultural, and religious backgrounds. It would be interesting to interview a wider sample, both in number and diversity, to explore whether this use of language perseveres. These factors may result in varying use of social comparisons.

People can benefit from making social comparisons, with research suggesting that individuals employing cognitive processes such as insight and causation experience higher rates of mood disturbance compared to those with an affective style.^[29] This difference in processing may serve as a target for future research exploring whether this can be a learned technique for both people with cancer and informal caregivers.

Downward evaluations can be a double-edged sword; those using them may find benefit but in a position of declining health, the comparator could instead serve as a forewarning.^[26] It would be interesting to follow both people with cancer and their informal caregivers from early diagnosis onwards to explore if there are any changes to their verbal conceptualization of the disease and who or what serves as a comparator. Schulz and Mohamed^[11] point out that the processes of benefit-finding and making these observations require time and can change in light of different pressures.^[16] Within a medical setting, stressors vary across time points such as diagnosis or during treatment^[30] and there might be variations in the use of this construction across different prognoses. It could be interesting to explore a subcontext of this which is a person's conception of their illness, its severity, and the presence of comparators. This may also impact, and be affected by, a person's use of health services and help-seeking behavior.

This understanding could be utilized in future research exploring whether there is an interaction of the dyad communication and expression of these appraisals; do both members use them, are they in the same direction, does one member of the dyad drive that mechanism and what, if any, benefit is conferred? By understanding the use of this mechanism further, not only will we be adding to our knowledge of the cancer experience for both individuals but it could provide an avenue to explore for future interventions; can these comparisons be encouraged within a dyad and would this be helpful? For example, actively capturing the occurrence of comparisons within and between members of a dyad,^[26] or an intervention implementing and comparing outcomes of various cognitive strategies for patient and caregiver.^[31]

4.3. Implications for psychosocial oncology practice

The use of social comparisons may provide a signal to the healthcare team that an individual requires further information and support.^[11] By paying attention to the use of this language, HCPs have the opportunity to tailor information-giving to match the needs of both patients and caregivers.^[32] For example, a patient starting to experience side effects of treatment might start making evaluations as a way of seeking reassurance about what

to expect. As noted previously, the interaction with patients who are facing more difficulties may be too threatening hence the cognitive construction of "others"; it is important to be mindful of this balance when suggesting support groups or introductions with other patients.

5. Conclusions

Although a lot of social comparison work has focused on people with cancer, it is unique to see the same language being used by informal caregivers as well.

The qualitative interviews collected during the PROACT study provide a naturalistic expression of social appraisals. Both people with cancer and informal caregivers crafted narratives of being lucky in various areas of life while using a comparator presumed to be facing more difficult circumstances. Given the nature of this study, participants could explore anything they wished in response to very open ended prompts, and it is interesting that a word such as "luck" was used to describe their experiences.

6. Conflicts of interest statement

The authors declare that they have no financial conflict of interest with regard to the content of this report.

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References

- [1] Schulz U, Mohamed NE. Turning the tide: benefit finding after cancer surgery. *Soc Sci Med* 2004;59:653–662.
- [2] Sears SR, Stanton AL, Danoff-Burg S. The yellow brick road and the emerald city: benefit finding, positive reappraisal coping and posttraumatic growth in women with early-stage breast cancer. *Health Psychol* 2003;22:487–497.
- [3] Thornton AA. Perceiving benefits in the cancer experience. *J Clin Psychol Med Settings* 2002;9:153–165.
- [4] Hulbert-Williams NJ, Morrison V, Wilkinson C, Neal RD. Investigating the cognitive precursors of emotional response to cancer stress: re-testing Lazarus's transactional model. *Br J Health Psychol* 2013;18:97–121.
- [5] Bigatti SM, Steiner JL, Miller KD. Cognitive appraisals, coping and depressive symptoms in breast cancer patients. *Stress Health* 2012;28:355–361.
- [6] Taniguchi A, Mizuno M. Psychological stress and coping in recently discharged postsurgical cancer patients. *Asia Pac J Oncol Nurs* 2016; 3:176–182.
- [7] Taylor SE, Lobel M. Social comparison activity under threat: downward evaluation and upward contacts. *Psychol Rev* 1989;96:569–575.
- [8] Wood JV, Taylor SE, Lichtman RR. Social comparison in adjustment to breast cancer. *J Pers Soc Psychol* 1985;49:1169–1183.
- [9] Bogart LM, Helgeson VS. Social comparisons among women with breast cancer: a longitudinal investigation. *J Appl Soc Psychol* 2000;30:547–575. doi: 10.1111/j.1559-1816.2000.tb02496.x [published Online First: Epub Date].
- [10] Bennenbroek FT, Buunk BP, van der Zee KI, Grol B. Social comparison and patient information: what do cancer patients want? *Patient Educ Couns* 2002;47:5–12.
- [11] Molleman E, Pruy J, Knippenberg A. Social comparison processes among cancer patients. *Br J Soc Psychol* 1986;25:1–13.
- [12] Shilling V, Starkings R, Jenkins V, Fallowfield L. The pervasive nature of uncertainty—a qualitative study with patients with advanced cancer and their informal caregivers. *J Cancer Surviv* 2017;11:590–603.
- [13] Van der Zee K, Buunk B, Sanderma R. Neuroticism and reactions to social comparison information among cancer patients. *J Pers* 1998; 66:175–194.
- [14] Buunk AP, Gibbons FX. Social comparison: the end of a theory and the emergence of a field. *Organ Behav Hum Decis Process* 2007;102:3–21.

- [15] Armaou M, Schumacher L, Grunfeld EA. Cancer survivors' social context in the return to work process: narrative accounts of social support and social comparison information. *J Occup Rehabil* 2018; 28:504–512.
- [16] Festinger L. A theory of social comparison processes. *Hum Relat* 1954;7:117–140.
- [17] Stanton AL, Danoff-Burg S, Cameron CL, Snider PR, Kirk SB. Social comparison and adjustment to breast cancer: an experimental examination of upward affiliation and downward evaluation. *Health Psychol* 1999;18:151–158.
- [18] Catt S, Starkings R, Shilling V, Fallowfield L. Patient-reported outcome measures of the impact of cancer on patients' everyday lives: a systematic review. *J Cancer Surviv* 2017;11:211–232.
- [19] Shilling V, Matthews L, Jenkins V, Fallowfield L. Patient-reported outcome measures for cancer caregivers: a systematic review. *Qual Life Res* 2016;25:1859–1876.
- [20] Shilling V, Starkings R, Jenkins V, Cella D, Fallowfield L. Development and validation of the patient roles and responsibilities scale in cancer patients. *Qual Life Res* 2018;27:2923–2934. doi: 10.1007/s11136-018-1940-2 [published Online First: Epub Date].
- [21] Shilling V, Starkings R, Jenkins V, Cella D, Fallowfield L. Development and validation of the caregiver roles and responsibilities scale in cancer caregivers. *Qual Life Res* 2019;28:1655–1668.
- [22] Pope C, Ziebland S, Mays N. Qualitative research in health care—analysing qualitative data (Reprinted from Qualitative Research in Health Care). *Bmj-Brit Med J* 2000;320:114–116.
- [23] Ritchie J, Spencer L, Bryman A, Burgess RG. Analyzing Qualitative Data. *Qualitative Data Analysis for Applied Policy Research*. London: Routledge; 1994. 173–194.
- [24] Kim Y, Schulz R, Carver CS. Benefit-finding in the cancer caregiving experience. *Psychosom Med* 2007;69:283–291.
- [25] Weiss T. Posttraumatic growth in women with breast cancer and their husbands. *J Psychosoc Oncol* 2002;20:65–80.
- [26] Helgeson VS, Taylor SE. Social comparisons and adjustment among cardiac patients. *J Appl Soc Psychol* 1993;23:1171–1195.
- [27] Bellizzi KM, Blank TO, Oakes CE. Social comparison processes in autobiographies of adult cancer survivors. *J Health Psychol* 2006; 11:777–786.
- [28] Heaton J. Use of social comparisons in interviews about young adults' experiences of chronic illness. *Qual Health Res* 2015;25:336–347.
- [29] Graves KD. Social cognitive theory and cancer patients' quality of life: a meta-analysis of psychosocial intervention components. *Health Psychol* 2003;22:210–219.
- [30] Arigo D, Suls JM, Smyth JM. Social comparisons and chronic illness: research synthesis and clinical implications. *Health Psychol Rev* 2014;8:154–214.
- [31] Vimalakanthan K, Kelly AC, Trac S. From competition to compassion: a caregiving approach to intervening with appearance comparisons. *Body Image* 2018;25:148–162.
- [32] van der Molen B. Relating information needs to the cancer experience: Information as a key coping strategy. *Eur J Cancer Care (Engl)* 1999;8:238–244.